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PROCEEDINGS
OF THE
American Society of Microscopists,
FIFTH ANNUAL MEETING.

The Fifth Annual Meeting of the American Society of Microscopists, held in Park Church, Elmira, New York, was called to order at 2:30 P. M., Tuesday, August 15th, 1882, by Dr. T. S. Up de Graff, Chairman of the Local Committee of Arrangements, who then introduced Dr. S. O. Gleason, President of the Elmira Microscopical Society. Dr. Gleason, addressing the Society, welcomed its members in the name of his society and of the citizens of Elmira. He spoke substantially as follows:

“ Mr. President, Ladies and Gentlemen :

“ The Elmira Microscopical Society bids me, as its President, to welcome the American Society of Microscopists heartily and cordially to our hearts and our homes; to all the ample rooms of Park Church; to all that we can do to make your stay pleasant and profitable while with us. We thus greet you.

"Whether the Elmira Microscopical Society was abiogenetic or biogenetic I cannot say. But I think it must be biogenetic—must have come from some living germ—like a swarm spore, micrococcus or flagellata. This society has been stimulated, vitalized, by "plastic particles" of thought that come from many workers that have long since "fallen on sleep." It owes much to you, Mr. President, and to the American Society. We are yet unicellular, amœboid in character. We extend our pseudopodia toward you, hoping to gather facts, thoughts by which we can grow, become enlarged, manly, noble, brave, heroic. We hope to feel more the grand inspiration that comes from scientific research and to understand more clearly the sublime mystery of life.

"By and by may we all become permanently differentiated and have a new environment, needing no microscope or telescope, seeing and knowing, till at last what is now a mystery shall be revealed in the sublime, clear light of eternal day."

After Dr. Geo. E. Blackham, President of the Society, had taken the chair, he happily responded to the address of welcome, speaking as follows:

"In behalf of the American Society of Microscopists, I desire to thank you most heartily for your very cordial welcome to your beautiful city, and to express my personal pleasure that this pleasing duty has fallen, on this special occasion, to me. For, while there are many members of this Society better fitted by nature and training to reply in fitting phrases to your eloquent expressions of greeting, yet there are few, if any, who know so fully from pleasant personal experience how much this welcome really means; how warm and earnest Elmira hospitality is.

"It is one of the many good things about the microscope that it brings its devotee into contact with the right sort of people, people of brains and culture, sociable people whom you are glad to know and add to your circle of friends.

"It is to my microscope that I owe the friendship of yourself and the Secretary of the Elmira Microscopical Society and all the delightful people who go to make up the membership of that intelligent, energetic and generally wide-awake organization. You well remember, Doctor, the pleasant incident that made us friends.

"So cordial and hearty has been my welcome on each of my recurring visits to Elmira, and so generous the hospitality with which I have been entertained while here, that I have about lost the sense of being a visitor and come to the conclusion that in arriving in Elmira I am arriving *at home*.

"This is the reason why I was so glad when the kind invitation to hold this meeting in Elmira was accepted by the American Society of Microscopists, and that by a happy coincidence—happy for me, that is—it is the Elmira meeting over which I have been honored with a call to preside.

"Though not gifted with the eloquence to reply fittingly, I can, at least, reply with the simple earnestness of one who knows whereof he speaks. I can say to my fellow members who have not the good fortune to be either residents of Elmira or frequent visitors here, that these words of welcome are not mere conventionalities, not mere fine phrases to delight the ear; the speaker means what he says when he bids you welcome, and you will find, as I have often done, that in hospitality Elmira's performance always excels the promise, and ere this week is over many of you will be convinced that you must be old residents here, back on a visit to old friends. That is the way Elmira people make their guests feel. I know, for I have tried it.

"Again I thank you, sir, and through you the local society, and the citizens of Elmira generally, for your kindly welcome and your generous preparations for our comfort and convenience."

The Chair then declared the Fifth Annual Meeting of the Society open for the transaction of the regular business of the session. The Chair then addressed the members concerning the preparation on the part of the officers for the Elmira meeting, as follows:

"Fellow Members of the American Society of Microscopists :

"It seems to me proper at this time that I should say a few words by way of introduction,—give some report of my stewardship,—outline for you what the officers of the Society have been doing during the past year to promote its interests, strengthen its organization and prepare for the present meeting.

"When I was honored by election to the presidency of this Society at Columbus, Ohio, last August, it was quite apparent that a crisis had been reached which demanded prompt and energetic action and justified some departures from conventional methods. My first official act was to call a meeting of the Executive Committee at the house of the newly-elected Secretary, Prof. Kellicott, in Buffalo; the next was to issue a circular to members giving a list of the newly-elected officers and their addresses, and offering some suggestions as to the preparations for the present meeting. I prepared a circular and question sheet to makers and dealers in microscopes which, being approved by the other members of the Committee on Eye-Pieces, was printed and sent out by the Secretary. Other meetings of the Executive Committee have been held and other circulars sent out in the name of that committee, and one other in my own name, by means of which and of a somewhat extensive correspondence I have managed to keep myself in constant communication with our widely-distributed Society as well as with a number of working microscopists not yet affiliated with us.

"Impression copies of all letters written by me in a strictly official capacity (numbering two hundred and twenty-two), will be found, properly indexed, in this book, and all letters received by me in my official capacity (numbering one hundred and fifty-nine), have been properly filed, endorsed and indexed, and are presented herewith. I hope this correspondence may be deemed worthy of permanent preservation in the archives of the Society, and that the practice thus initiated may be continued by my successors, and records thus accumulated which may prove of great value to the future historian of microscopy in America.

"The Committee on Eye-Pieces having carefully considered the matter, determined first to get together as much information as possible, and with that view sent out circulars and question sheets to makers and dealers, with request to send their replies to Dr. R. H. Ward, the chairman of the committee, to whose very competent hands the preparation of the report has been entrusted. It is quite impossible to deal finally with this subject at present, but the report of progress will, I believe, prove interesting and suggestive, and show the advisability of continuing the committee for another year.

"Among the subjects which have received the consideration of the Executive Committee during the year is the proposition to establish a Quarterly Journal which should be the organ of the Society, contain all its proceedings, be a means of communication among its members, and contain besides a *résumé* of microscopical progress throughout the world. A sub-committee with Mr. E. H. Griffith as Chairman, was appointed to examine and report. I trust their report will be received with the attention and discussed with the care suitable to the importance of the subject, and that final and decisive action will be taken only after careful weighing of the arguments for and against the proposition.

"A committee was also appointed to report on the revision of the Constitution, but will, of course, be unable to report till after action is taken upon the question of a Journal. The fact that it has been thought desirable to amend our Constitution from time to time has been made the basis of some rather ungenerous suggestions as to fickleness, etc.; but it seems to me that it simply shows our readiness to adapt ourselves to changing circumstances which follow naturally and appropriately from the growth and experience of the Society.

"The prize offered by Mr. E. H. Griffith, of the Executive Committee, for the best paper "On the Adulteration of some Important Article of Food or Medicine, and its Detection by Means of the Microscope," having been formally accepted by the Society, a circular was issued by order of the Executive Committee, giving information as to terms of competition, etc. Another valuable prize was offered by Prof. Stowell, editor of *The Microscope*, but after consultation with members of the Executive Committee I felt obliged to decline it, for the reason, among others, that there was not sufficient time to get the matter properly before the members, and allow of proper preparation of papers. I recommend that this whole subject of prizes be taken up and the fixed policy of the Society be decided upon and announced. It will require careful consideration, as there is much to be said both for and against the practice. At the same time I wish to make public acknowledgement of the kind liberality of Mr. Griffith and Prof. Stowell in making these offers.

"I have thus briefly outlined what has been done by the officers during the past year, and called your attention to some of the more important subjects requiring the attention of the Society in executive session.

"In conclusion, I desire to express my deep sense of obligation to the executive officers most immediately associated with me in the work of the past year. On our admirable Secretary, Prof. Kellicott, has fallen the heaviest part of this labor, and he has brought to the discharge of his onerous duties a degree of ability and industry which can hardly be fully appreciated by those not specially cognizant of the amount of labor and time required to carefully edit and promptly publish and mail the Columbus proceedings, attend to preparation, printing and mailing of circulars, in addition to a very extended correspondence.

"Our Treasurer, Dr. Fell, has not only managed his own department with skill, promptness and accuracy, but has rendered valuable assistance to both President and Secretary at all times.

"Mr. Griffith, of the Executive Committee, has proved himself a most useful officer, his extensive travels and unquenchable enthusiasm having enabled him to extend the influence of this Society in many directions.

"Of Vice-President Up de Graff I hardly know what to say. That he has been active, energetic and efficient, is a matter of course. Of his labors on the Local Committee you will all have opportunity to judge before the week is out, and I do not wish, at present, to anticipate the special vote of thanks in which your verdict is sure to be expressed.

"Finally, let me, in the most delicate way, urge upon each and all to express your opinions freely and without fear or favor, but at the same time not to forget, in the ardor of debate, that courtesy of manner and dignity of expression which alone befit the deliberations of a scientific society."

On the recommendation of the Executive Committee the following persons were elected to membership in the Society:

Charles H. Stowell,	-	-	-	Ann Arbor, Mich.
Louisa R. Stowell,	-	-	-	Ann Arbor, Mich.
J. T. Brownell,	-	-	-	Mansfield, Pa.

Walter Underwood,	-	-	-	Washington, Ind.
J. B. Sutherland,	-	-	-	Baltimore, Md.
Lewis M. Eastman,	-	-	-	Baltimore, Md.
Harry B. Sadtler,	-	-	-	Baltimore, Md.
Edward Huber,	-	-	-	Richmond, Va.
M. L. Holbrook,	-	-	-	New York City.
Dio Lewis,	-	-	-	New York City.
Simon H. Gage,	-	-	-	Ithaca, New York.
H. P. Mallory,	-	-	-	Utica, New York.
L. A. Crandall,	-	-	-	Owego, New York.
B. W. Thomas,	-	-	-	Chicago, Illinois.
Edward S. Nott,	-	-	-	Hamburg, N. Y.
J. H. Jewett,	-	-	-	Canandaigua, N. Y.
Mary A. Booth,	-	-	-	Longmeadow, Mass.
Charles B. Parker,	-	-	-	Cleveland, Ohio.
Ada M. Kenyon,	-	-	-	Buffalo, New York.
Mary F. Hall,	-	-	-	Buffalo, New York.
Frank L. James,	-	-	-	St. Louis, Missouri.
F. W. Taylor,	-	-	-	Danville, Illinois.
Francis M. Hamlin,	-	-	-	Auburn, New York.
Romaine J. Curtiss,	-	-	-	Joliet, Illinois.
Ephraim Cutter,	-	-	-	New York City.
Samuel Wagenhals,	-	-	-	Fort Wayne, Ind.
Wallace S. White,	-	-	-	Kalamazoo, Mich.
S. H. French,	-	-	-	Amsterdam, N. Y.
A. E. Magoris,	-	-	-	Binghamton, N. Y.
H. G. Kendall,	-	-	-	Grand Rapids, Mich.
Thomas F. Lucy,	-	-	-	Lowmanville, N. Y.

The Society then proceeded to the reading and discussion of the following papers :

On Certain Crustaceous Parasites of Fresh-Water Fishes.—D. S. Kellicott.

This paper was briefly discussed by C. M. Vorce and J. D. Hyatt.

Osmic Acid : Its Uses and Advantages in Microscopical Investigation.—Thomas B. Redding.

This paper was read by the Secretary and briefly discussed by Theodore Deecke, S. H. Gage, C. E. Hunaman and Thomas Taylor.

On Forms Observed in Water of Lake Erie.—C. M. Vorce.

This paper was discussed at length by Thomas Taylor, Theodore Deecke, S. H. Gage, D. S. Kellicott, T. S. Up de Graff, F. S. Newcomer, S. O. Gleason, Geo. E. Blackham, and others.

On motion, Dr. Theodore Deecke was requested to exhibit, at the Wednesday evening session, his apparatus for preparing and examining large sections, also sections of the whole human brain, made by himself, together with such explanations as he chose to make.

Adjourned at 5 P. M., to meet in evening session.

The evening session, held in the auditorium of Park Church, was called to order by Vice-President Up de Graff, who introduced President Blackham to a good audience of members and citizens. He then delivered his annual address on the "Evolution of the Modern Microscope."

Adjourned to meet at 9 A. M., Wednesday.

Wednesday, August 16.

The Society was called to order at 9 A. M., President Blackham in the chair.

Minutes of the previous day's sessions read and approved.

On the recommendation of the Executive Committee the following persons were elected to membership in the Society :

George H. Chaffee,	-	-	-	-	Le Raysville, Pa.
Thomas B. Stowell,	-	-	-	-	Cortland, N. Y.
Charles H. Bassett,	-	-	-	-	Boston, Mass.
A. Clifford Mercer,	-	-	-	-	Syracuse, N. Y.
Robert Aberdein,	-	-	-	-	Syracuse, N. Y.
George K. Collins,	-	-	-	-	Syracuse, N. Y.
Abram D. Balen,	-	-	-	-	Plainfield, N. Y.
William A. Rogers,	-	-	-	-	Cambridge, Mass.
George L. Smith,	-	-	-	-	Baltimore, Md.
H. C. Coon,	-	-	-	-	Alfred Center, N. Y.
Frank F. Colwell,	-	-	-	-	Urbana, Ohio.
George W. Morehouse,	-	-	-	-	Wayland, N. Y.
Edward S. Morley,	-	-	-	-	Cleveland, Ohio.
Jacob D. Cox,	-	-	-	-	Cincinnati, Ohio.
William Hailes,	-	-	-	-	Albany, N. Y.
S. H. Durand,	-	-	-	-	Herrick, Pa.

On motion, the Society proceeded to ballot for members of the Nominating Committee, with the following result :

A. Clifford Mercer, Chairman ; Lester Curtis, W. H. Walmesley, George E. Fell, D. R. Ford, Edward Bausch, T. B. Stowell.

Dr. Lester Curtis, on behalf of the State Microscopical Society of Illinois, extended to the Society an invitation to hold its next annual meeting in Chicago, Illinois.

The invitation was referred to the Executive Committee.

The Society then proceeded to the reading of the following papers :

A Basis of Natural Classification of Plants by Orders, Genera and Species, founded on Features of their Seeds—J. T. Brownell.

On a new Species of Fluke from the Muskrat.—A. H. Tuttle.

The Epidermis of the Cyclostomata.—A. H. Tuttle.

These papers were read by title.

Fresh-water Sponges.—Henry Mills.

This paper was discussed by W. W. Munsen, C. M. Vorce, T. F. Lucy, George E. Fell and D. S. Kellicott.

Light and Illumination.—Ernst Gundlach.

This paper was read by Dr. Blackham, Dr. Curtis in the chair. It was discussed at length by Messrs. Mercer, Up de Graff, McCalla, Blackham, Curtis, Gleason, and others.

The Society then adjourned until 2 P. M.

The Society was called to order promptly at 2 P. M., President Blackham in the chair.

The minutes of the morning session were read and approved.

On recommendation of the Executive Committee, the following persons were elected members of the Society :

H. J. Rice,	-	-	-	-	Cazenovia, New York.
W. R. Weisiger,	-	-	-	-	Manchester, Virginia.
E. J. Stone,	-	-	-	-	Waverly, New York.
J. B. Marvin,	-	-	-	-	Louisville, Kentucky.
L. A. Ridgeway,	-	-	-	-	Mansfield, Pa.
W. E. Johnson,	-	-	-	-	Waverly, New York.

On motion of Prof. Gage, it was resolved that at the *soirée* Thursday evening the doors shall be open to exhibitors only from 7 to 8 o'clock ; for the public after 8 o'clock.

The Society then took up the consideration of papers as follows :

Polyzoa : Observations on Species Detected in the Vicinity of Buffalo.—D. S. Kellicott.

Micro-organisms found in the blood of a case of Tetanus.—Lester Curtis.

These papers were read by title.

Termination of the Nerves in the Liver.—M. L. Holbrook.

This paper was discussed by Messrs. Barrett, Gage, Bleile, Lucy, Fell, Stillson, Nott, Deecke and Blackham.

The Effects of Division of the Vagi on the Heart.—A. M. Bleile.

Discussed by Dr. Fell, Dr. Krackowizer, Dr. Barrett, Dr. Lucy, Dr. Thomas Taylor and Prof. Gage.

Dr. Bleile was requested, by resolution, to continue his investigations and report his results at the next annual meeting.

On a Combined Standard Yard and Metre, with Subdivisions into Feet and Inches, and into Decimetres and Centimetres.—William A. Rogers.

Prof. Rogers exhibited to the Society his new and simple comparator ; also a *yard-metre* and a *deci-inch*. The usual time for adjourning having already passed, a full discussion of this paper was impracticable.

At 5:30 the Society adjourned to meet in evening session.

The Society was called to order by President Blackham, at 8:30 P. M. The reading of the Minutes of the afternoon session was omitted by direction of the Chair.

The following persons recommended by the Executive Committee were elected to membership :

Harry T. Buttolph, - - - Buffalo, New York.

J. O. Stillson, - - - - Evansville, Ind.

The Society then proceeded to the reading of the following papers:

Modified and Improved Mechanical Microscopical Lamp.—Geo. C. Taylor.

Mr. Taylor exhibited his lamp and pointed out its advantages, viz.: The flame is lower than in other mechanical lamps and an intense flame may be secured with any height of wick.

A brief discussion followed.

On Micro-photography with Dry-plate and Lamp Light, Including Lantern Projection.—W. H. Walmesley.

This paper was illustrated by exhibition of apparatus and the taking of photographs.

Discussion followed, Messrs. McCalla, Mills, Huber, Nott and others, participating.

The final paper of the session was *A Memoir of Chas. A. Spencer.*—H. L. Smith.

Adjourned to meet Thursday, at 9 A. M.

Thursday, August 17.

The Society was called to order at 9 A. M., pursuant to adjournment, by President Blackham. Minutes of Wednesday's sessions approved.

On recommendation of the Executive Committee the following persons were elected members of the Society:

Francis Wolle,	-	-	-	-	Bethlehem, Pa.
H. W. Fuller,	-	-	-	-	Chicago, Illinois.
H. A. Johnson,	-	-	-	-	Chicago, Illinois.
John J. B. Hatfield,	-	-	-	-	Indianapolis, Ind.
Dwight W. Smith,	-	-	-	-	Canton, Pa.

The committee appointed by the Executive Committee to inquire into and report upon the feasibility of establishing a Quarterly Journal by the Society, reported as follows:

1st. That it is not advisable to establish a separate and independent journal. 2d. That, in the judgment of the committee, no change should be made at present in method of publishing the proceedings.

On motion of Dr. Barrett, the report was adopted.

Dr. Curtis again presented the advantages to the Society of holding its next annual meeting in Chicago. Prof. McCalla and Dr. Newcomer seconded the remarks of Dr. Curtis. Letters were also presented from Mr. B. W. Thomas and others, urging the Society to meet in Chicago.

The Society, by vote, extended its thanks to the State Microscopical Society of Illinois for their kind invitation to make Chicago the next place of meeting, and requested the Executive Committee to favorably consider the matter and fix the place of meeting in that city in 1883.

Dr. R. H. Ward, Chairman of the National Committee on Micrometry, presented the following report of progress:

It now looks as though our desire to have a comparatively indestructible standard, of known accuracy, for comparison with the scale now in use, or hereafter to be made, was about to be realized. Through the kind efforts of Prof. J. E. Hilgard and other officers of the United States Coast Survey, a ruling upon a platino-iridium bar was long since prepared. I have recently learned from President Barnard, of the completion of the thorough series of tests and comparisons to which it has been subjected on the part of the Coast Survey. It may, therefore, be assumed that this plate will soon be in the hands of the committee; and this whether ultimately adopted as a standard or not, will give valuable aid towards the attainment of precision in our micrometry.

Dr. R. H. Ward, Chairman of Committee on Eye-Pieces, submitted the following report of progress:

Several prominent makers have not yet replied, so far as I know, to the queries in the circular issued by the Committee on Oculars. Others, however, have furnished the information sought, and have expressed a willingness to co-operate with the Society in the matter. All from whom I have heard have expressed a desire for uniformity in nomenclature as well as in diameter of tubes; and all have promised to conform as soon as possible to the usages finally adopted by the Society, though some specify the condition that such usage should be adopted by all. As to nomenclature, one person prefers to name the oculars by their linear magnifying power, while all the rest prefer to name by the equivalent focal distance, as in objectives. Each maker very naturally thinks most desirable the size of tube he has been accustomed to employ.

These reports were received and ordered recorded with the Minutes.

The Society then proceeded with the reading of the following papers:

Brief Description of the Improved Griffith Club Microscope.—
E. H. Griffith.

New Freezing Microtome, with Practical Illustrations.—Thomas Taylor.

The discussions upon these papers were limited by the Chair to five minutes each. Questions were asked by various members and answered by the authors.

These papers were read by title:

Terminations of the Nerves in the Testicle.—H. G. Beyer.

Rhizosolenia gracilis, n. sp.—H. L. Smith.

The Structure of the Muscle of the Lobster.—M. L. Holbrook.

The Chairman of the Nominating Committee, Dr. A. C. Mercer, reported the following candidates for officers for the ensuing year:

For President.—Prof. Albert Mc Calla, Fairfield, Iowa.

For Vice-Presidents.—E. H. Griffith, Fairport, New York; Geo. C. Taylor, Thibodeaux, Louisiana.

For Executive Committee.—H. F. Atwood, Rochester, New York; Dr. L. M. Eastman, Baltimore, Maryland; Dr. F. S. Newcomer, Indianapolis, Indiana.

On motion of Prof. Gage, the Secretary was instructed to cast the unanimous ballot of the Society for the ticket as nominated.

These gentlemen were then declared officers-elect of the Society.

After the formal announcement of the result of election, the President and first Vice-President-elect addressed the Society, expressing thanks and their appreciation of the honors conferred upon them.

Dr. Theodore Deecke exhibiting his apparatus for preparing large sections, explained his method of hardening the whole brain. He also exhibited most marvelous sections of the whole human brain, and a microscope, designed by himself, by means of which these large sections could be examined.

On motion of Dr. Fell, Prof. William A. Rogers was appointed a member of the National Committee of Micrometry, to represent the Society.

The matter of employing an official stenographer for the next annual meeting was, by resolution, referred to the Executive Committee.

The committee appointed by Executive Committee to report on revision of the Constitution, reported as follows :

Article III. Strike out the words, "and shall be ineligible for two years after the expiration of their term of office."

Article IV. Add to end of article the clause, "and of the Secretary, with the advice and assistance of the President and Treasurer, to act as Publishing Committee, and to edit and publish the Proceedings of the Society."

The report was, by resolution, laid upon the table.

The Society adjourned to meet at 2 P. M.

The Society was called to order at 2 P. M., by President Blackham.

The reading of the minutes of the morning session was omitted

On recommendation of the Executive Committee these persons were elected members:

Caleb Green,	-	-	-	-	Homer, N. Y.
J. M. Adams,	-	-	-	-	Watertown, N. Y.
N. T. Clark,	-	-	-	-	Canandaigua, N. Y.
F. A. Paul,	-	-	-	-	Syracuse, N. Y.
W. J. Vought,	-	-	-	-	Buffalo, N. Y.
H. G. Beyer,	-	-	-	-	Brooklyn, N. Y.
A. G. Field,	-	-	-	-	Des Moines, Iowa.

Vice-President Up de Graff then took the chair.

The Society proceeded to the reading of the following papers:

On the Naked-eye Visibility of Single-ruled Lines not Exceeding 100.1000 of an inch in width.—Wm. A. Rogers.

Micrographical Contribution.—*The Vegetable Nature of the Membrane in Croup.*—Ephraim Cutter.

On the Fasoldt Stage Micrometers.—T. C. Mendenhall.

Structure of the Maize Kernel.—Geo. E. Fell.

These papers were read by title.

Sporadic Growth of Certain Diatoms and the Relation thereof to Contamination of Water Supply.—J. D. Hyatt.

This paper was briefly discussed by Dr. Hamlin and others.

Modification of the Wenham Half-button Illuminator with Improved Mounting.—Robert Dayton.

Observations on the Fat Cells and Connective Tissue Corpuscles of Necturns.—Simon H. Gage.

This paper was discussed by Dr. Chas. B. Parker and Dr. Thomas Taylor.

Wheel-like and other Spicula of the Chirodota of Bermuda.—F. M. Hamlin.

Stereoscopic Effects Obtained by the Powell & Leland High-power Binocular Arrangement.—A. Clifford Mercer.

Microscopic Organisms in the Buffalo Water-supply.—Henry Mills.

This paper was briefly discussed by Messrs. Vorce, Burrill and Lucy.

A brief opportunity was then given for presenting new apparatus and methods.

Prof. A. H. Chester described his method of making block-tin cells.

Dr. F. S. Newcomer gave his method of preparing a brass cell.

Dr. Allan Y. Moore explained his ingenious modification of the reflecting camera lucida.

Dr. A. C. Mercer explained Mr. F. A. Paul's modification of Williams' Microtome.

At this point Dr. Blackham again took the chair and asked if there was any further business before final adjournment.

Dr. L. M. Eastman moved the following :

Resolved, That the thanks of this Society are eminently due, and cordially tendered to the citizens of Elmira, to the pastor and officers of the Park Church, to the Local Society and its committee, with its indefatigable Chairman, for the cordial welcome they have given us, and their successful efforts for our comfort and entertainment.

Dr. F. S. Newcomer at once offered the following:

Resolved, That we record our hearty appreciation of the comprehensive and accurate reports of our proceedings as published in the Elmira *Advertiser*.

These resolutions were seconded by Mr. E. H. Griffith and by Dr. W. C. Barrett.

Both motions were unanimously adopted.

The resolutions were responded to by Drs. Up de Graff and Krackowizer.

Prof. T. J. Burrill offered a resolution of thanks and kind appreciation of the efforts for the success of the Society's annual meeting to the retiring officers.

Adopted.

Dr. Geo. E. Fell, Treasurer, offered a report showing the balance on hand. He also reported, as custodian, the amount of property belonging to the Society.

Both reports were accepted.

On motion of Prof. McCalla, By-law III. was amended thus: The manuscript and drawings of any paper accepted for publication shall be filed with the Secretary by the middle of September next succeeding the meeting at which such paper was read.

President Blackham then declared the time had come for formally closing the Fifth Annual Meeting of the American Society of Microscopists. He sincerely thanked the members of the Society for their kindness and courtesy shown him during the year and the several sessions of the Annual Meeting, expressing his satisfaction with the work of the same. He then introduced Prof. McCalla, President-elect, who addressed a few earnest words to the Society, asking their hearty co-operation for success in the future, particularly the coming year.

At 5 P. M. the Society adjourned *sine die*.

THURSDAY EVENING'S SOIREE.

The annual *soirée*, under the direction of a committee of the Elmira Microscopical Society, held in Park Church, was participated in by members of both the Local and the National Societies. Regarding the number of instruments, the character of the work exhibited, the number of citizens in attendance and the comfort of exhibitors and people, this *soirée* was unquestionably the most successful one in the history of the Society.

FRIDAY'S EXCURSION.

On Friday the Society was invited by citizens to join them in an excursion. The party left Elmira by rail at 8 o'clock A. M. for Watkins, where several hours were spent in the Glen, with dinner at the Glen Mountain House. Then followed a ride on Seneca Lake, steamer Onondaga, to Long Point, and return to Watkins and Elmira. The arrangements were complete, the day perfect. The final day will surely be remembered by the attending members of the Society as a most fitting termination of the happy annual meeting in Elmira.

[Approved.]

GEO. E. BLACKHAM, President.